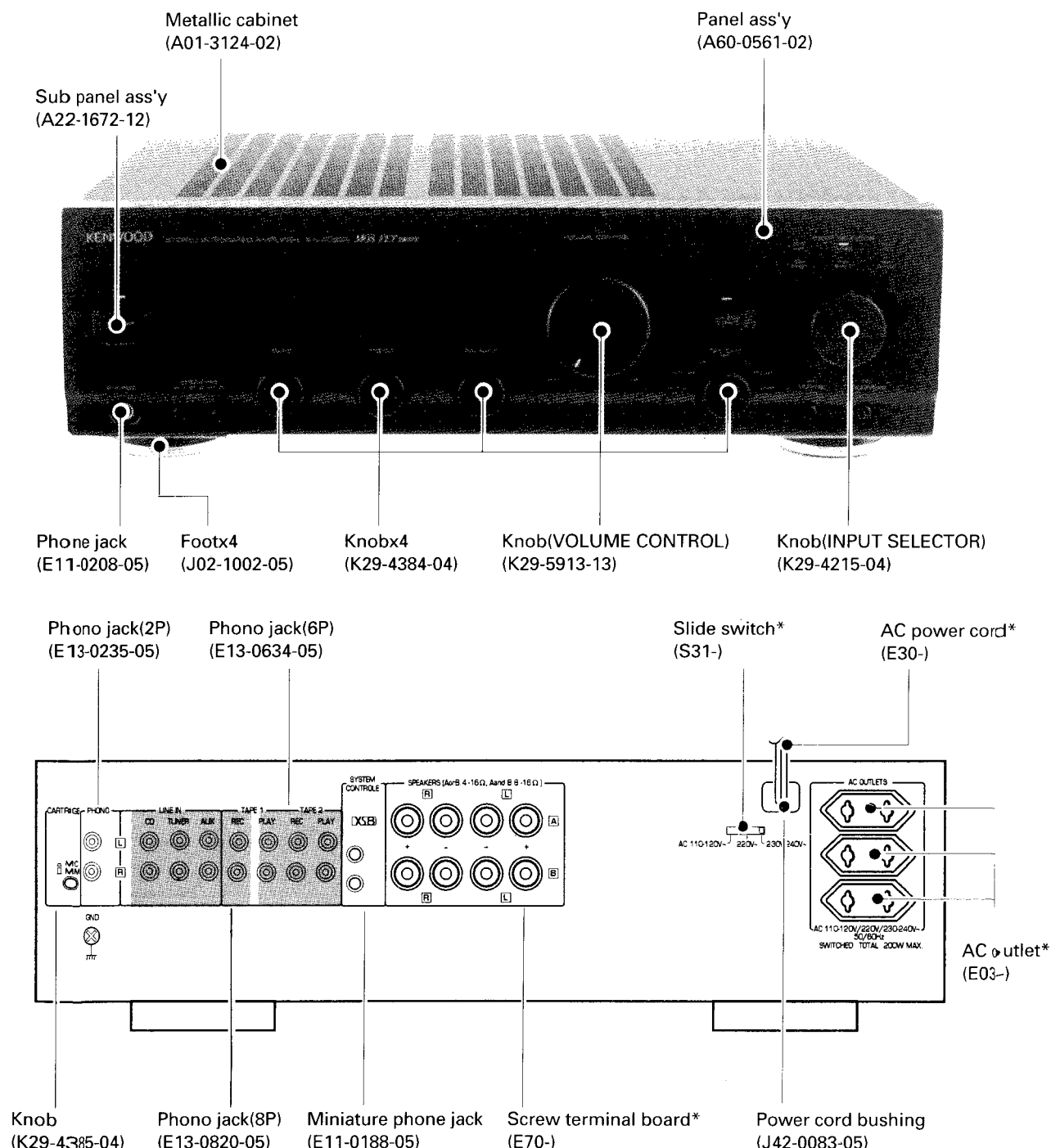


KA-4060R

SERVICE MANUAL



*Refer to parts list on page 22


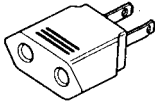
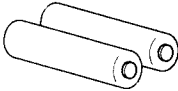
Caution : Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage. (Don't connect ground of unit.)

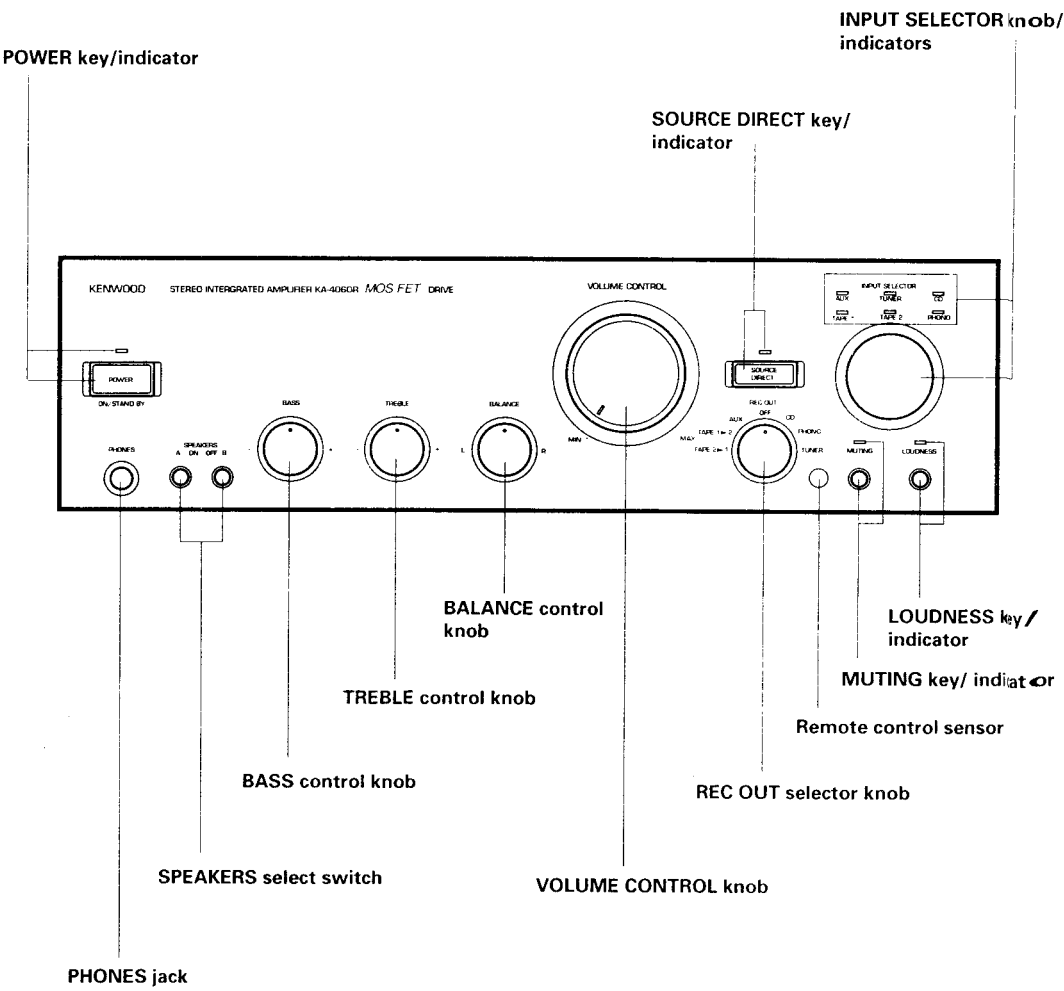
KA-4060R

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ACCESSORIES	2	PC BOARD	9
REMOTE CONTROL	3	SCHEMATIC DIAGRAM	13
CIRCUIT DESCRIPTION	4	EXPLODED VIEW	21
ADJUSTMENT	7	PARTS LIST	22
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Accessories

• Remote control unit (A70-0979-05)	1	• AC plug adaptor (Except for U.K., Australia and Europe) For the unit with a European AC plug in areas other than Europe. (E03-0115-05)	1
			
Battery cover:(A09-0159-08)			
• Batteries(R03/UM-4/ "AAA")	2		
			



REMOTE CONTROL

Operation keys for KENWOOD components connected by system control cords

TAPE A operation keys

These keys perform the same operations as the corresponding keys on the cassette deck. However, operations requiring simultaneous pressing of two keys are not possible. These keys are used for operating Deck A of a double-cassette deck.

CD player operation keys

* The DISC key is only used for the Autochanger CD player.

INPUT SELECTOR keys

* MONITOR function is not available with this unit.

POWER key

TAPE B operation keys

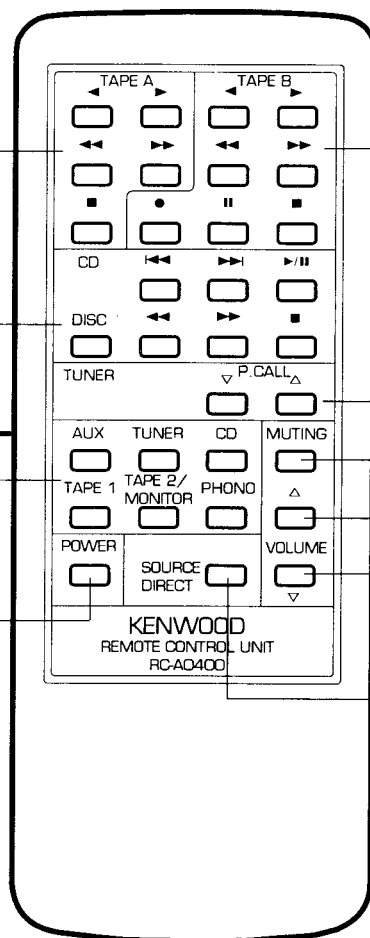
These keys perform the same operations as the corresponding keys on the cassette deck. However, operations requiring simultaneous pressing of two keys are not possible. These keys are used for operating Deck B of a double-cassette deck or single-cassette deck.

TUNER operation keys

MUTING key

VOLUME UP (Δ), DOWN (∇) keys

SOURCE DIRECT key



Model: RC-A0400
infrared system

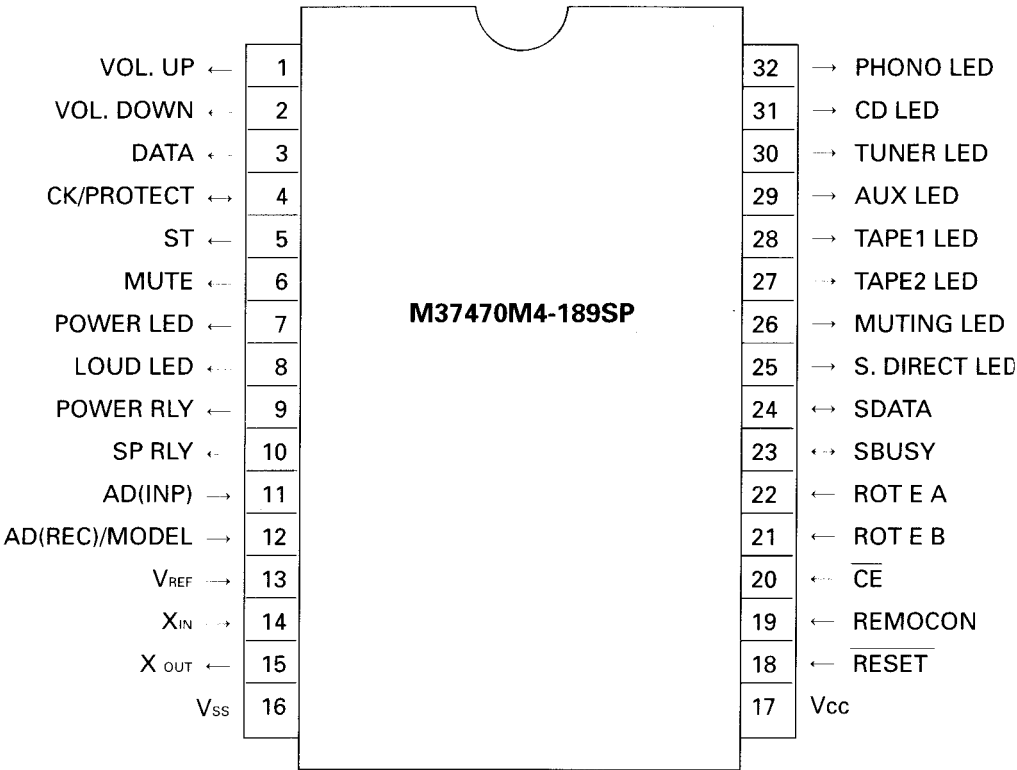
KA-4060R operation keys

These keys have the same function as the corresponding keys on the main unit.

KA-4060R

CIRCUIT DESCRIPTION

Microprocessor M37470M4-189SP(X09:IC5)
Pin connection



CIRCUIT DESCRIPTION

Pin function

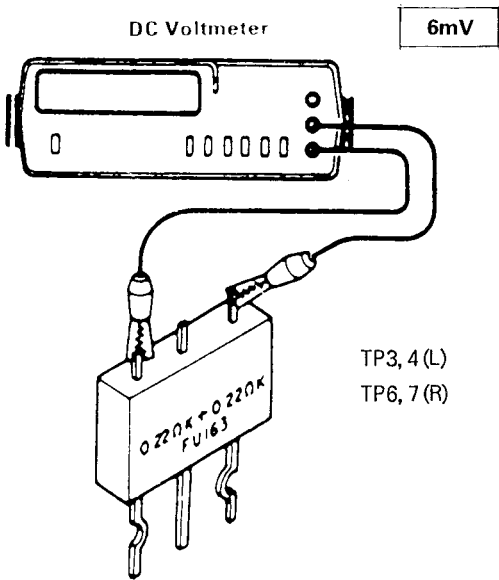
Pin NO.	Pin name	I/O	Name	Description
1	P17/Srdy	O	VOL.UP	Output of UP signal for control of electronic volume Electronic volume UP:HIGH Electronic volume except UP:LOW Back - up mode:LOW
2	P16/CLK	O	VOL.DOWN	Output of DOWN signal for control of electronic volume Electronic volume DOWN:HIGH Electronic volume except DOWN:LOW Back - up mode:LOW
3	P15/Sout	O	DATA	Output of DATA signal for control of selector IC(NJU7313, NJU7311)
4	P14/Sin	I/O	PROTECTION/CLK	Normally:input CLOCK output:output Protect ON:HIGH, Protect OFF:LOW Output of CLOCK signal for control of selector IC Back - up mode:input
5	P13/T1	O	ST	Output of ST signal for control of selector IC Normally:LOW Back - up mode:LOW
6	P12/T0	O	MAIN MUTE	Output of MUTE signal MUTE ON:HIGH, MUTE OFF:LOW Back - up mode:input
7	P11	O	POWER LED	Control of POWER LED LOW:ON, HIGH:OFF Back - up mode:input
8	P10	O	LOUDNESS LED	Control of LOUDNESS LED LOW:ON, HIGH:OFF Back - up mode:input
9	P23/IN3	O	POWER RELAY	Control of POWER RELAY POWER ON:HIGH, POWER OFF:LOW Back-up mode:LOW
10	P22/IN2	O	SPEAKER RELAY	Control of SPEAKER RELAY SPEAKER ON:HIGH, SPEAKER OFF:LOW Back - up mode:LOW
11	P21/IN1	I	INPUT SEL	Input of INPUT SEL analog signal Back - up mode:input
12	P20/IN0	I	REC SEL/ Model switching	Input of REC SEL analog signal Input of model switching analog signal More than 0.5V:KA - 4060R Less than 0.5V:KA 2060R/3060R Back - up mode:input
13	Vref	I	Vref	Standard voltage of A/D
14	Xin	I	Xin	Connection of crystal oscillator(8MHz)
15	Xout	O	Xout	Connection of crystal oscillator(8MHz)

CIRCUIT DESCRIPTION

16	Vss		Vss	GND
17	Vcc		Vcc	+5V
18	RESET	I	RESET	Reset
19	P30/INT0	I	REMOCON	Input of remote control signal
20	P31/INT1	I	CE	Back - up detection
21	P32/CNTR	I	ROTARY E A	Input of rotary encoder A signal HIGH:clockwise Back - up mode:input
22	P33/CNTR1	I	ROTARY E B	Input of rotary encoder B signal LOW:counterclockwise Back -up mode:input
23	P40	I/O	S BUSY	System serial BUSY signal input/output Back - up mode:input
24	P41	I/O	S DATA	System serial DATA signal input/output Back - up mode:input
25	P00	O	S.DIRECT LED	Control of SOURCE DIRECT LED LOW:ON, HIGH:OFF Back - up mode:input
26	P01	O	MUTING LED	Control of MUTING LED LOW:ON, HIGH:OFF Back - up mode:input
27	P02	O	TAPE 2 LED	Control of TAPE 2 LED LOW:ON, HIGH:OFF Back - up mode:input
28	P03	O	TAPE 1 LED	Control of TAPE 1 LED LOW:ON, HIGH:OFF Back - up mode:input
29	P04	O	AUX LED	Control of AUX LED LOW:ON, HIGH:OFF Back - up mode:input
30	P05	O	TUNER LED	Control of TUNER LED LOW:ON, HIGH:OFF Back - up mode:input
31	P06	O	CD LED	Control of CD LED LOW:ON, HIGH:OFF Back - up mode:input
32	P07	O	PHONO LED	Control of PHONO LED LOW:ON, HIGH:OFF Back - up mode:input

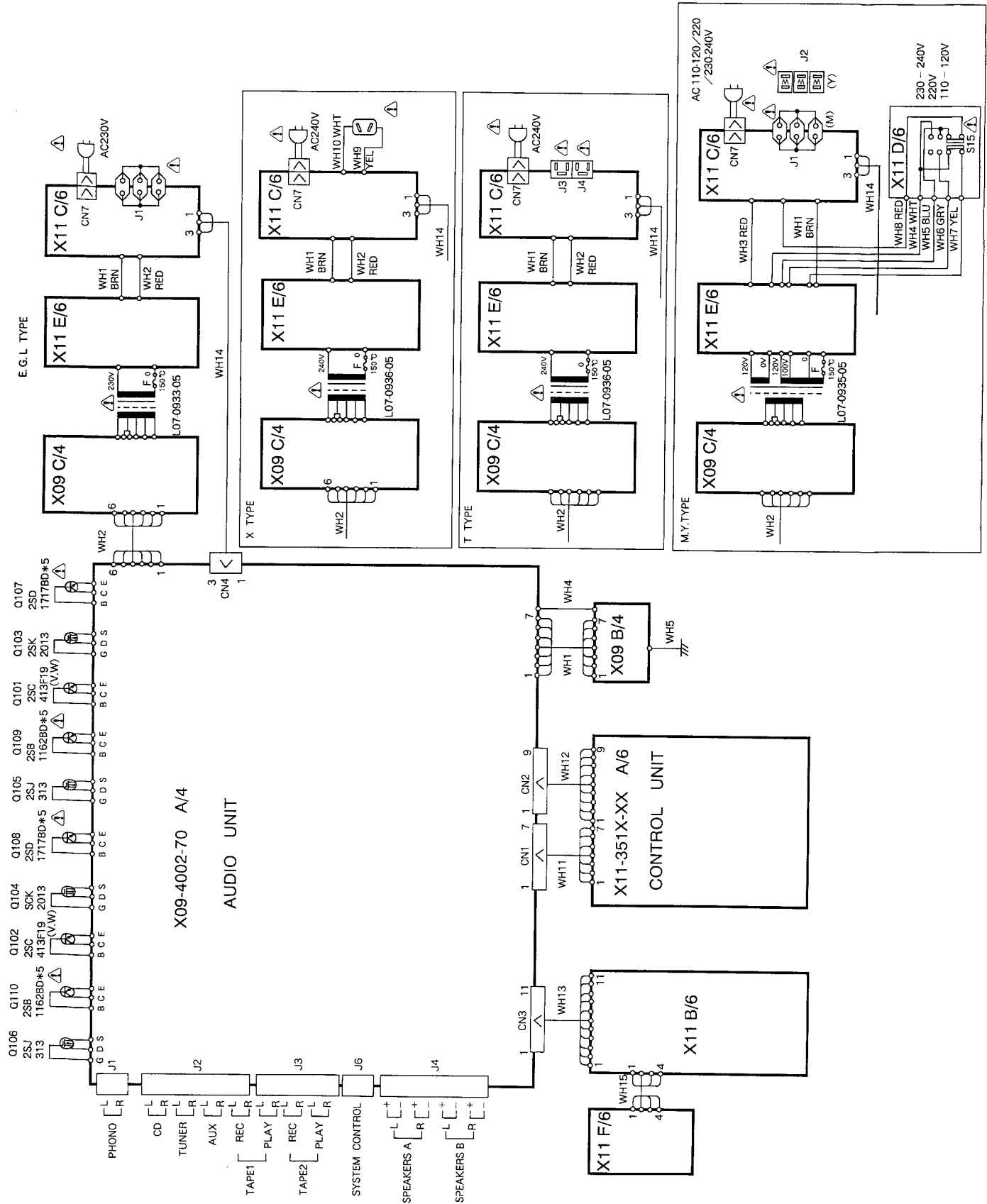
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, set the respective switches as follows : POWER : ON SPEAKER : B REC OUT : OFF SELECTOR : PHONO							
1	IDLE CURRENT	—	Connect a DC voltmeter across TP 3,4 TP 6,7	VOLUME : 0	VR 3,5(L) VR 4,6(R)	6mV (30mA)	(a)



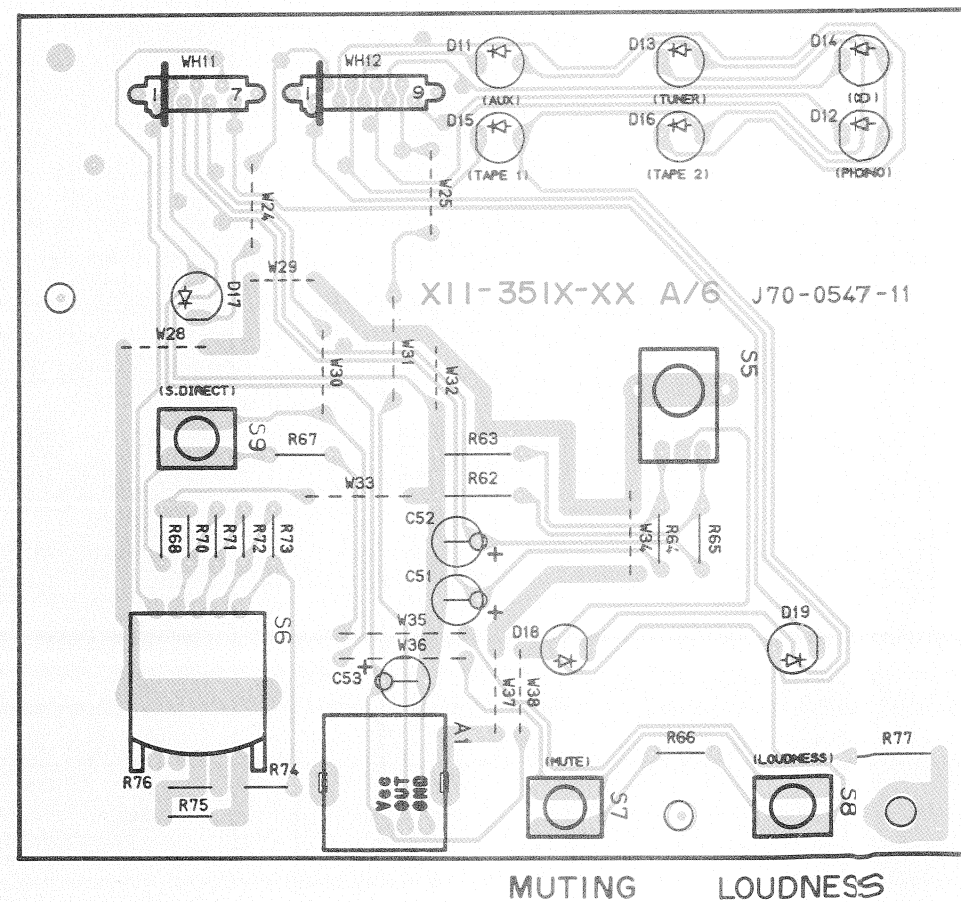
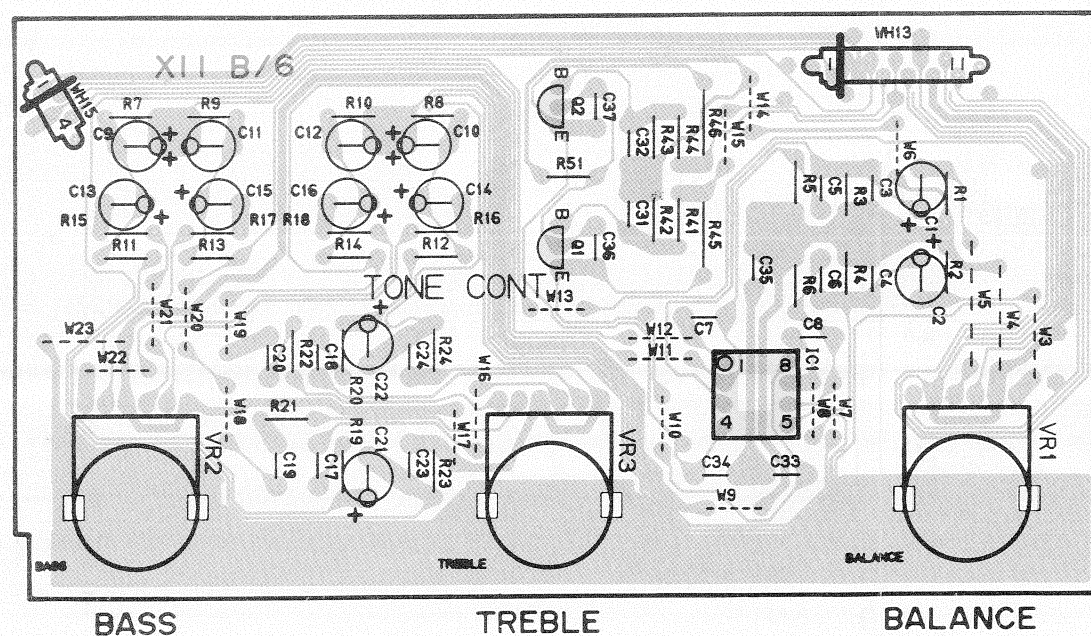
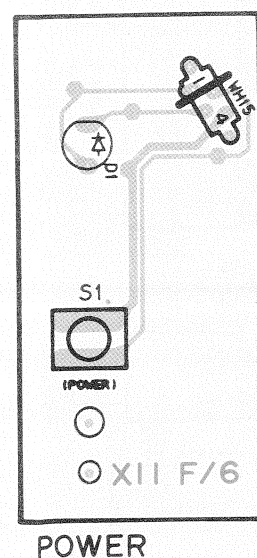
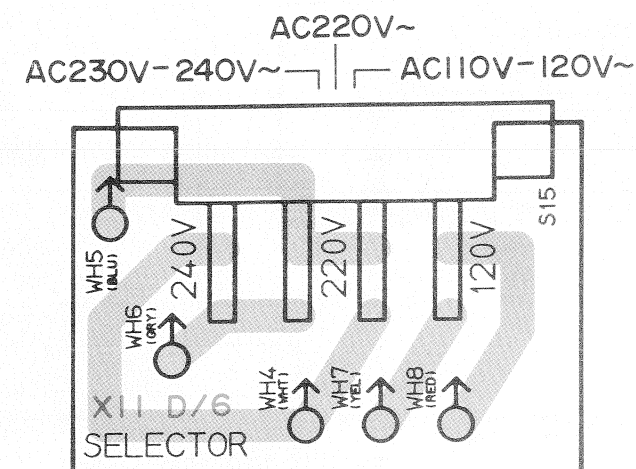
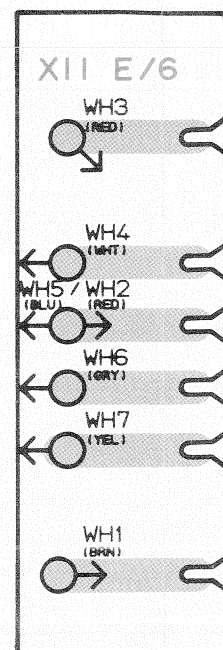
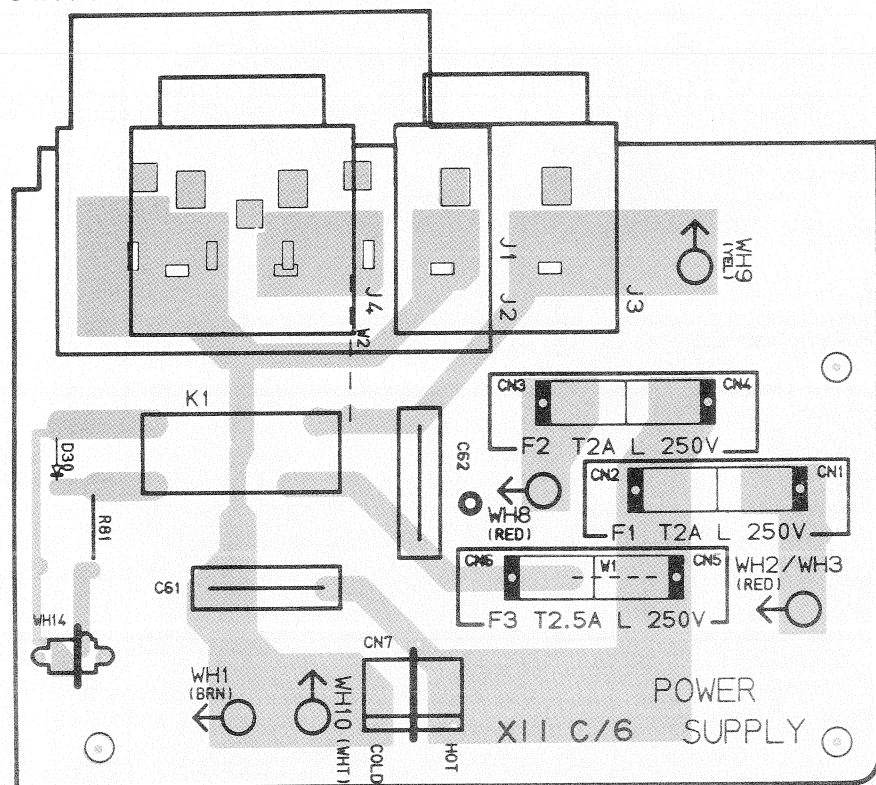
Caution : Signal ground floats from chassis ground. Please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and/or measure the voltage.(Don't connect ground of unit.)

WIRING DIAGRAM



PC BOARD(Component side view) CONTROL UNIT(X11-351X-XX)

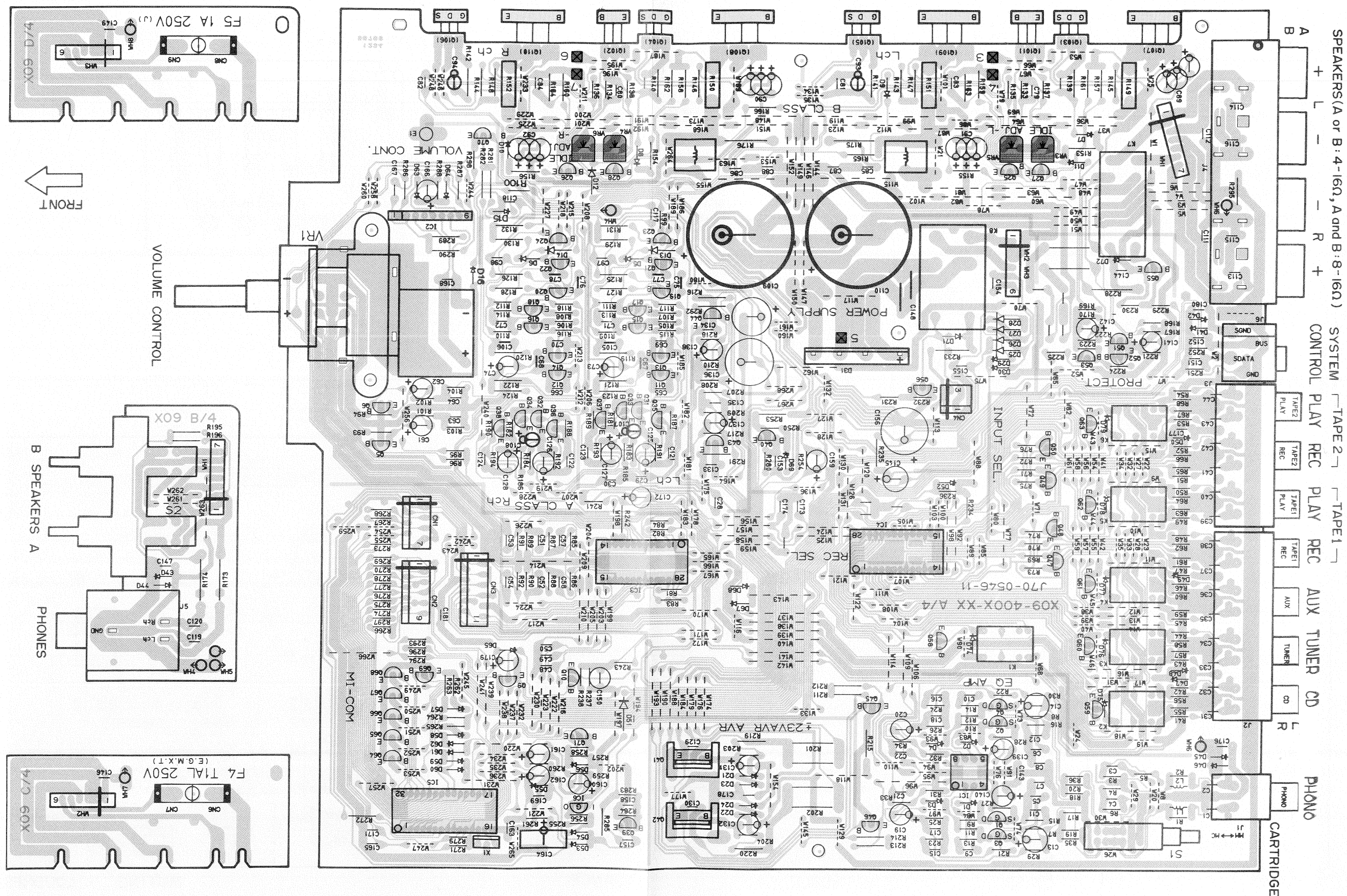
AC OUTLETS
AC100V 50/60Hz
SWITCHED TOTAL 200W MAX.



Refer to the schematic diagram for the values of resistors and capacitors.

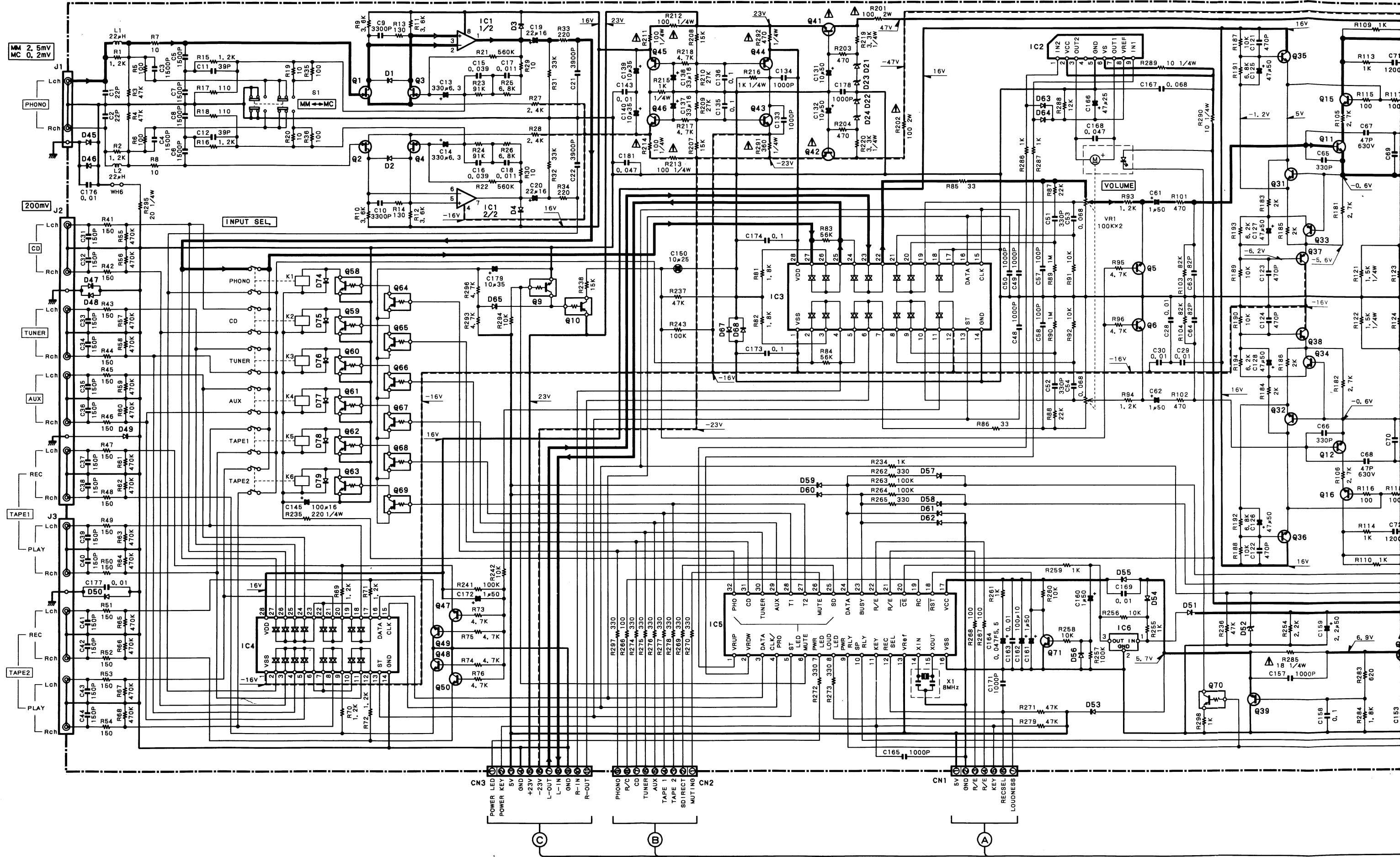
PC BOARD(Component side view)

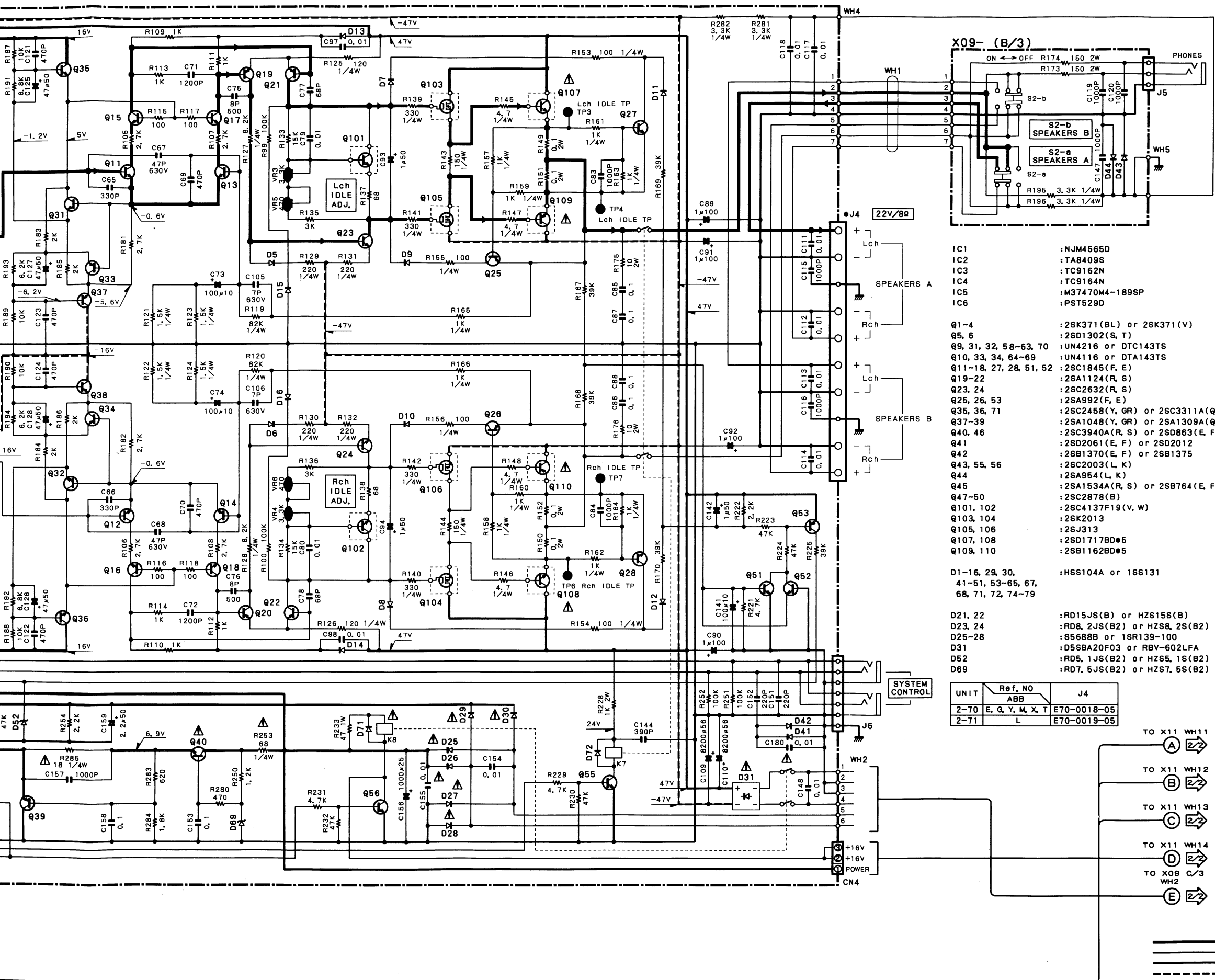
AUDIO UNIT(X09-400X-XX)



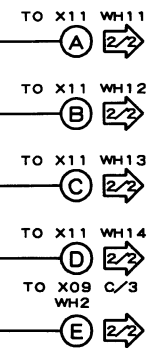
Refer to the schematic diagram for the values of resistors and capacitors.

X09-400X-XX (A/3) AUDIO UNIT





UNIT	Ref. NO	J4
2-70	E, G, Y, M, X, T	E70-0018-05
2-71	L	E70-0019-05



— SIGNAL LINE
 --- GND LINE
 —+B LINE
 —-B LINE

Signal ground floats from chassis ground. please connect the cold lead of tester or oscilloscope to the cold terminal of speaker or input jack if check and / or measure the voltage. (Don't connect ground of unit.)

• DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- 2SA1124 2SB764 2SC2878
- 2SA1534A 2SC1845 2SC3940A
- 2SA954 2SC2003 2SD1302
- 2SA992 2SC2632 2SD863

- DTA143TS 2SC2458
- DTC143TS
- UN4116
- 2SA1048

- 2SB1162BD*5
- 2SD1717BD*5

- UN4216
- 2SA1309A
- 2SC3311A

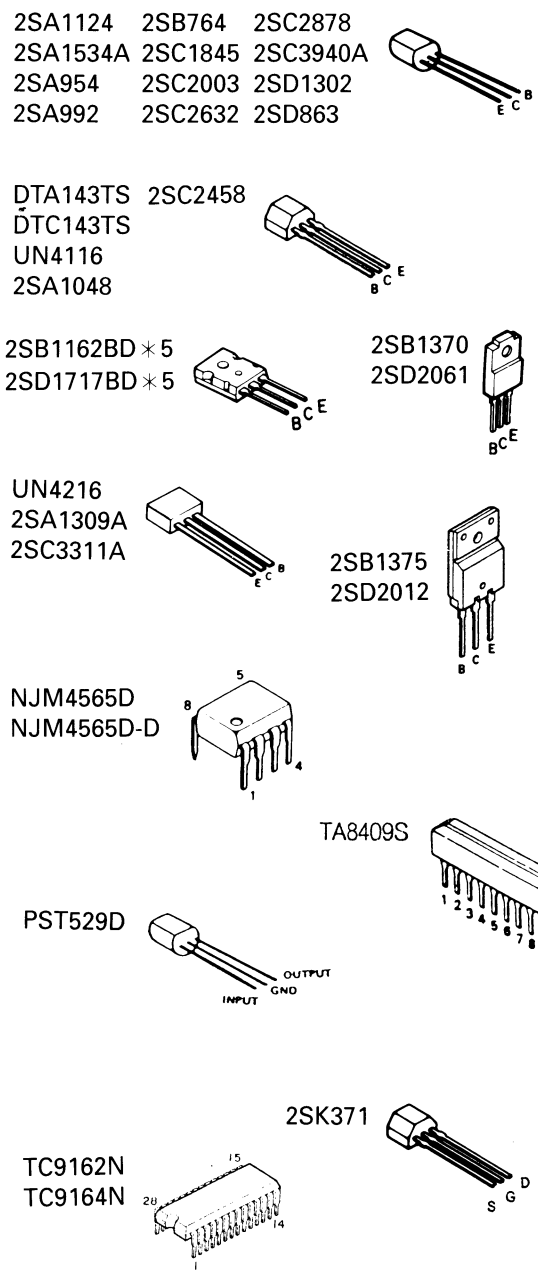
- NJM4565D
- NJM4565D-D

- PST529D

- TC9162N
- TC9164N

- 2SK371

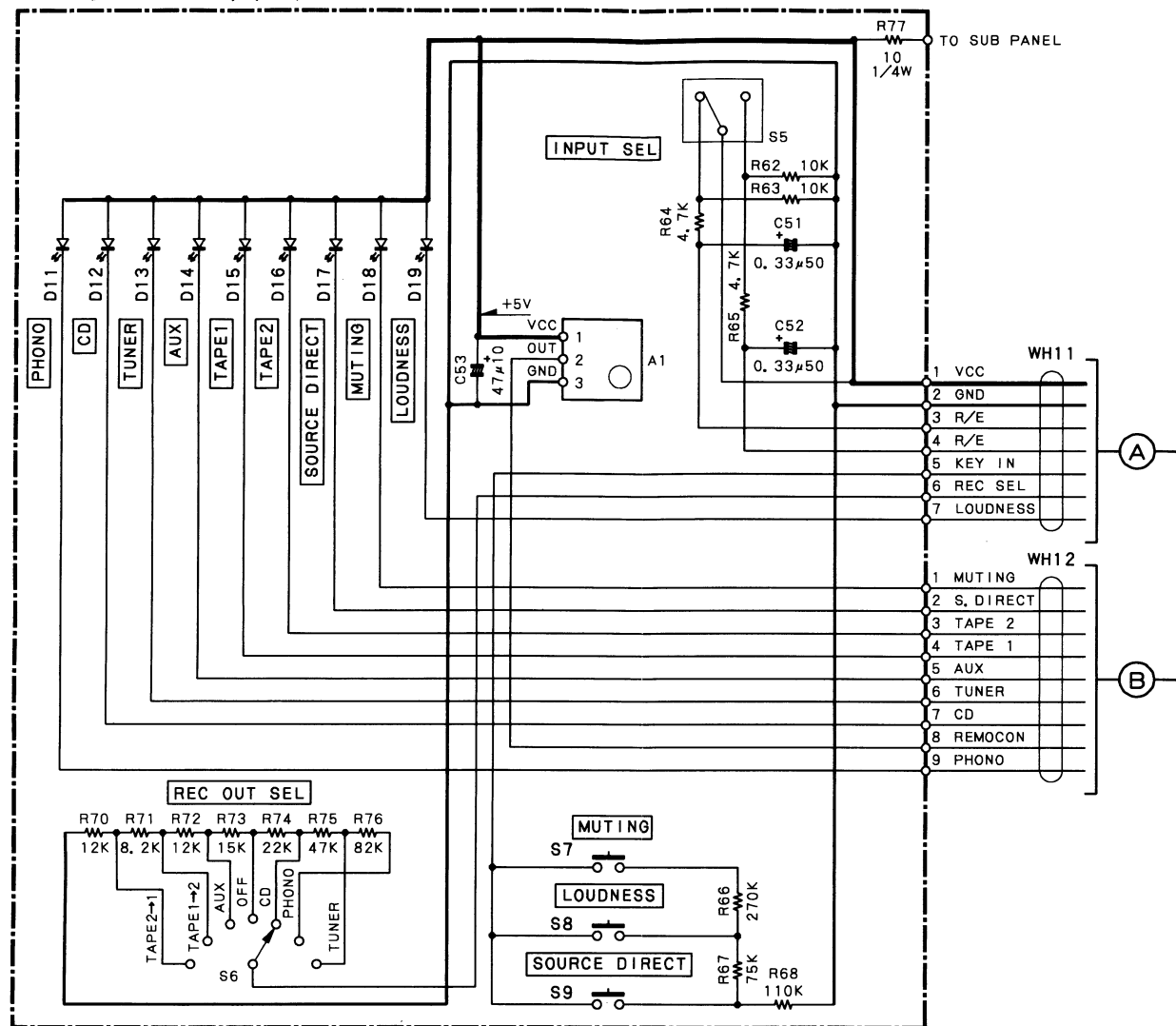
- TA8409S



KA-4060R
 KENWOOD

Y08-5042-70

X11-351X-XX (A/6) CONTROL UNIT



TO X09 CN1

TO X09 CN2

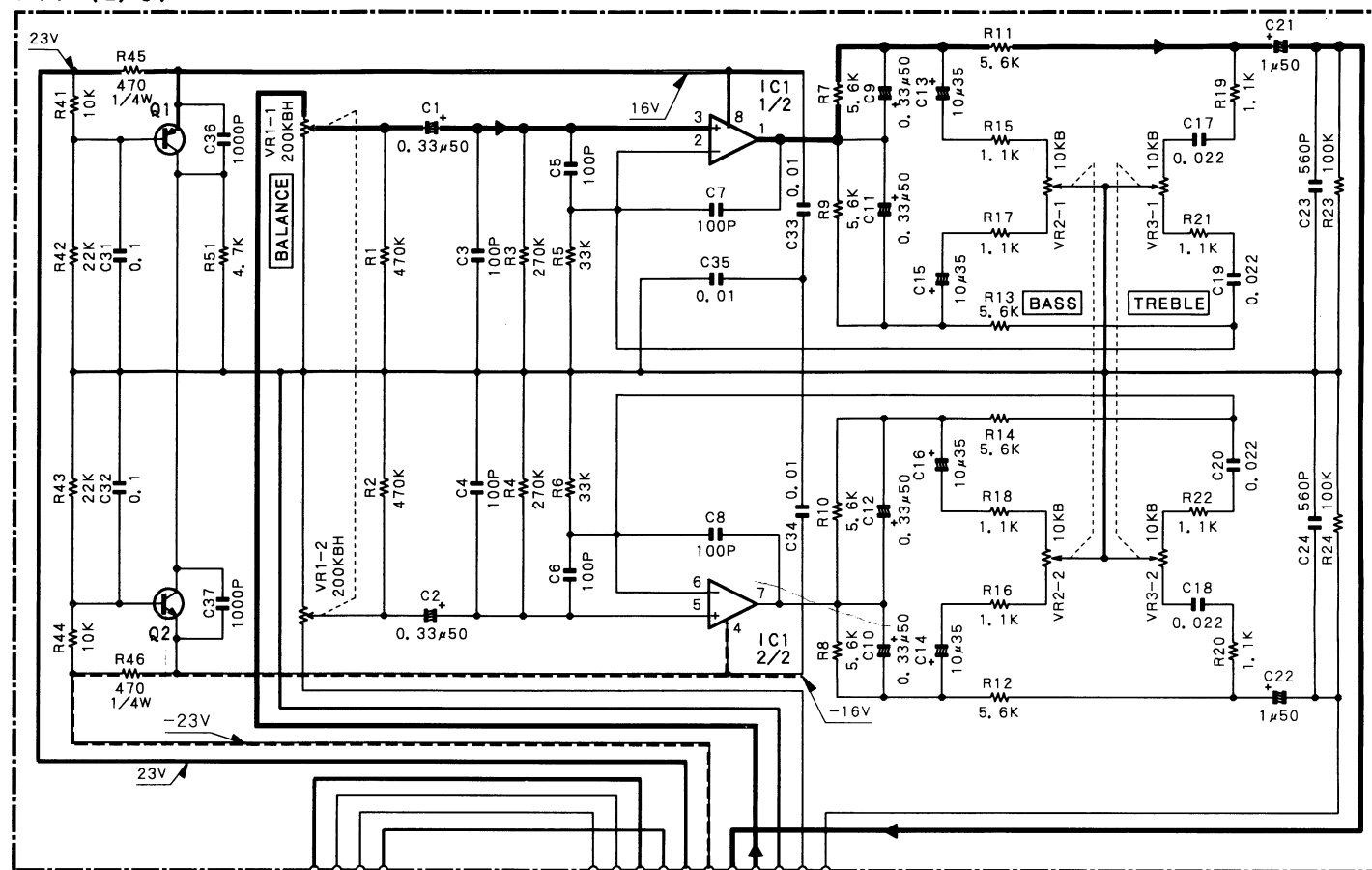
TO X09 CN3

TO X09 CN4

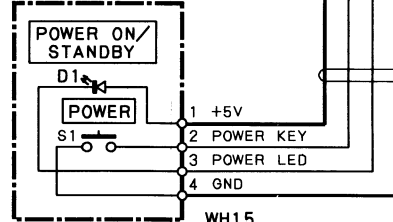
TO X09 A/3

WH2

X11-(B/6)



X11-(F/6)

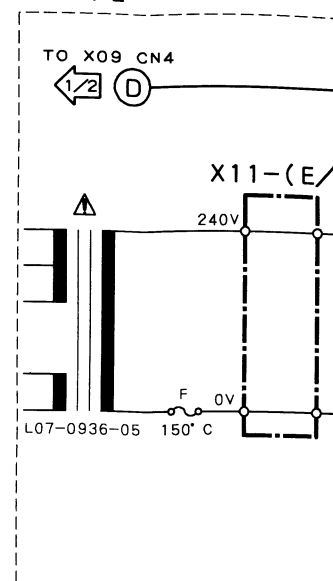


X11-351X-XX

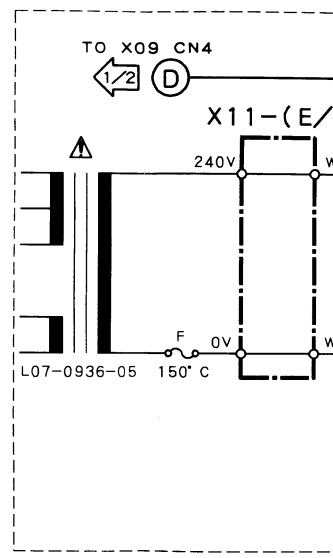
IC1 : NJM4565D-D
Q1 : 2SA954(L, K)
Q2 : 2SC2003(L, K)
D1, 11-19 : B30-1291-05
D30 : 1SS133 or HSS104

UNIT NAME	ABB
X11-3512-70	E, G, L
X11-3512-91	Y
X11-3510-21	M
X11-3510-71	X
X11-3510-51	T

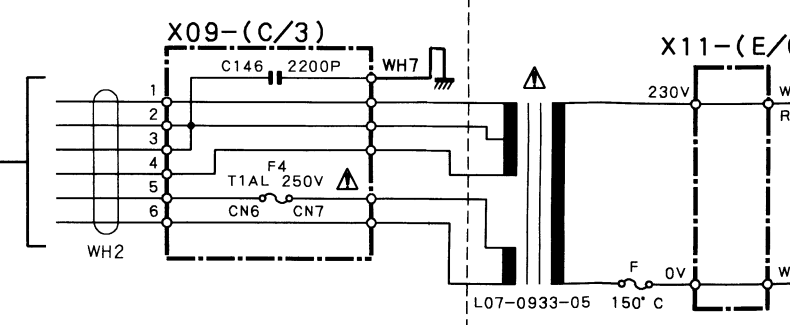
T TYPE



X TYPE



E, G, L TYPE



[illegible][illegible]

The diagram illustrates the power supply section of a radio receiver, featuring three main modules: X11-(E/6), X11-(D/6), and X11-(C/6).

AC Input and Transformer: The AC input is connected to the primary of a transformer (L07-0935-05) with a 150°C rating. The secondary provides 120V, 0V, 120V, and 100V taps. The 120V tap is connected to WH3 (RED). The 0V tap is connected to WH6 (GRY) and WH7 (YEL). The 100V tap is connected to WH5 (BLU) and WH4 (WHT). The 120V tap is also connected to WH14 (POWER).

AC Voltage Selection: A switch (S15) selects between 230-240V, 220V, and 110-120V. The 230-240V position is connected to WH8 (RED). The 220V position is connected to WH1 (BRN). The 110-120V position is connected to WH14 (POWER).

Module X11-(E/6): This module provides the main power supply. It includes a fuse (F1, T2AL 250V) and a capacitor (C61, 6800P 250V). The output is connected to the HOT and COLD lines of the AC outlets.

Module X11-(D/6): This module provides a secondary power supply. It includes a fuse (F2, T2AL 250V) and a capacitor (C62, 6800P 250V). The output is connected to the HOT and COLD lines of the AC outlets.

Module X11-(C/6): This module provides a tertiary power supply. It includes a fuse (F3, T2AL 250V) and a capacitor (C63, 6800P 250V). The output is connected to the HOT and COLD lines of the AC outlets.

AC Outlets: The AC outlets are connected to the HOT and COLD lines. The HOT line is connected to the AC 110-120/220/230-240V input. The COLD line is connected to the AC 110-120/220/230-240V input.

Other Components: The diagram also shows a fuse (F4, T2AL 250V) and a capacitor (C64, 6800P 250V) connected to the HOT and COLD lines. A switch (S16) is connected to the HOT line. A transformer (L07-0935-05) is connected to the HOT and COLD lines.

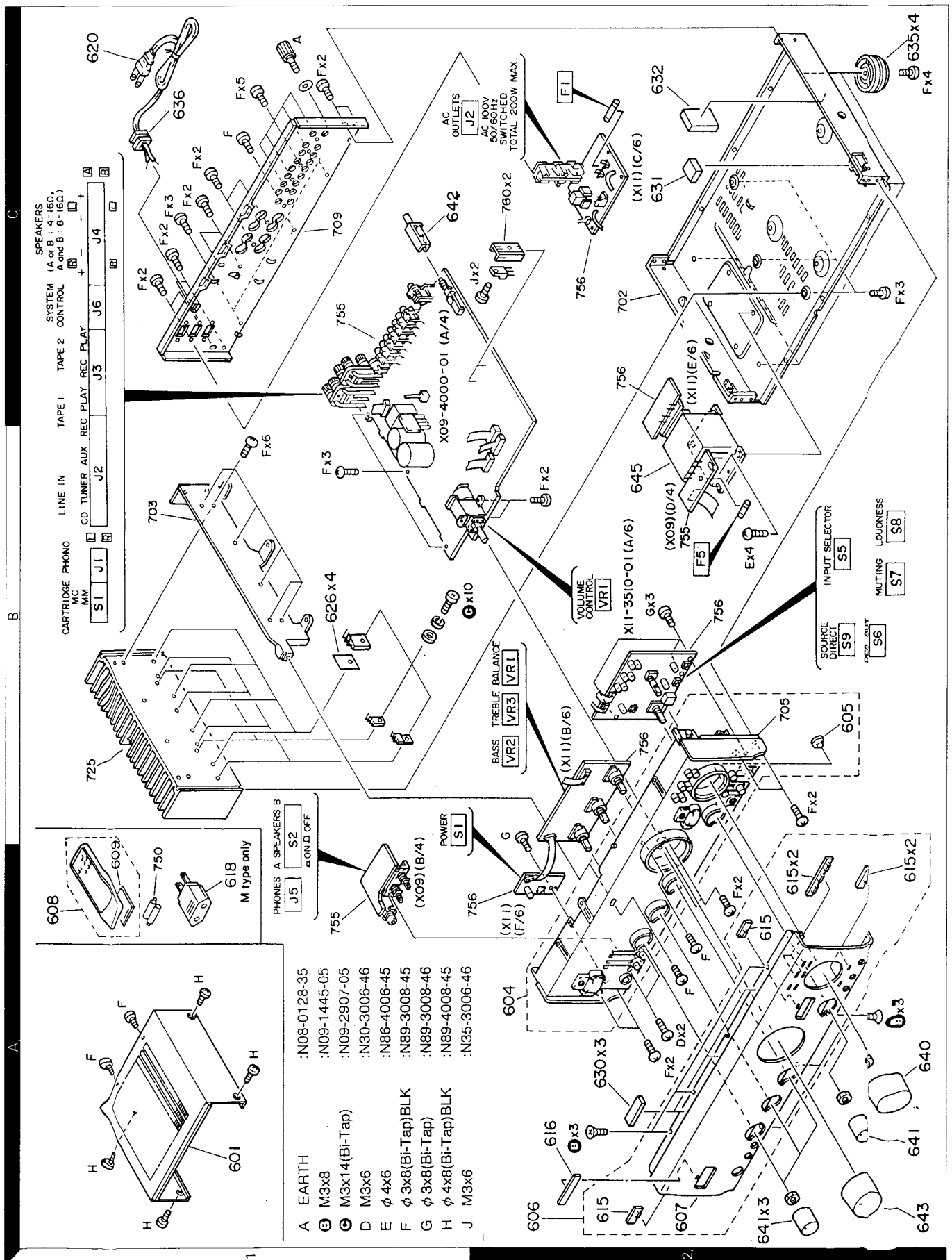
CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

_____ SIGNAL LINE
 _____ GND LINE
 _____ +B LINE
 - - - - - -B LINE

KA-4060R
KENWOOD

Y08-5042-70

EXPLODED VIEW



PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert

2

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
641	2A		K29-4384-04	KNØB (BAS/TRBLE/BALANCE/R.ØUT)	
642	1C	*	K29-4385-04	KNØB (MM/MC)	
643	2A	*	K29-5913-13	KNØB ASSY (VOLUME CONTRØL)	
645	2B	*	L07-0933-05	POWER TRANSFORMER	EGL
645	2B	*	L07-0935-05	POWER TRANSFORMER	YM
645	2B	*	L07-0936-05	POWER TRANSFORMER	XT
A	1C		N08-0128-35	BINDING POST (EARTH)	
B	2A		N09-1445-05	FLAT HEAD SET SCREW M3X8	
C	1B		N09-2907-05	TAPTITE WITH WASHER M3X14	
D	2A		N30-3006-46	PAN HEAD MACHINE SCREW M3X6	
E	2B		N86-4006-45	BINDING HD TAPTITE SCREW M4X6	
F	1C, 2A		N89-3008-45	BINDING HEAD TAPTITE SCREW	
G	2A, 2B		N89-3008-46	BINDING HEAD TAPTITE SCREW	
H	1A		N89-4008-45	BINDING HEAD TAPTITE SCREW	
AUDIO UNIT(X09-400X-XX)					
C1, 2			C045FSLIH220J	CERAMIC 22PF	J
C3 -8			C045FBIH152K	CERAMIC 1500PF	J
C9, 10		*	C092FMH1H32JEL	MYLAR 3300PF	K
C11, 12			C045FSLIH390J	CERAMIC 39PF	J
C13, 14			C004KWJ331M	ELECTRØ 330UF 6.3WV	
C15, 16		*	C092FMH1H393JEL	MYLAR 0.039UF	J
C17, 18		*	C092FMH1H13JEL	MYLAR 0.011UF	J
C19, 20			C004KW1C20M	ELECTRØ 22UF	16WV
C21, 22		*	C092FMH1H392JEL	MYLAR 3900PF	J
C28 -30		*	C045FFH103Z	CERAMIC 0.010UF	Z
C31 -44			C045FSLIH151J	CERAMIC 150PF	J
C48 -50			C045FBIH102K	CERAMIC 1000PF	J
C51, 52			C045FSLIH331J	CERAMIC 330PF	J
C53, 54		*	C092FMH1H683JEL	MYLAR 0.068UF	J
C57, 58			C045FSLIH101J	CERAMIC 100PF	J
C61, 62			C004KW1H010M	ELECTRØ 1.0UF	50WV
C63, 64			C045FSLIH20J	CERAMIC 82PF	J
C65, 66			C045FSLIH331J	CERAMIC 330PF	J
C67, 68			C91-1470-05	FILM 47PF	K
C69, 70			C045FBIH471K	CERAMIC 470PF	K
C71, 72		*	C092FMH1H22JEL	MYLAR 1200PF	J
C73, 74			C004KW1A101M	ELECTRØ 100UF	10WV
C75, 76		*	C045FSL2H0800	CERAMIC 8.0PF	D
C77, 78			C045FSL2H680J	CERAMIC 68PF	J
C79, 80			C045FFH103Z	CERAMIC 0.010UF	Z
C83, 84			C045FBIH102K	CERAMIC 1000PF	K
C85 -88			CF92FVH104J	ME 0.10UF	J
C89 -92		*	C004KW2A010M	ELECTRØ 1.0UF	100WV
C93, 94		*	C90-3568-05	ELECTRØ 1UF	50WV
C97, 98		*	C092FMH1H03JEL	MYLAR 0.010UF	J
C105, 106			C91-1459-05	FILM 7PF	K
C109, 110		*	C90-3545-05	ELECTRØ 8200UF	56WV
C111-114		*	C045FFH103Z	CERAMIC 0.010UF	Z
C115, 116			C045FBIH102K	CERAMIC 1000PF	K
C117			CF92FVH103J	ME 0.010UF	J
C118		*	C092FMH1H03JEL	MYLAR 0.010UF	J
C119, 120		*	C092FMH1H02JEL	MYLAR 1000PF	J
C121-124			C045FBIH471K	CERAMIC 470PF	K
C125-128			C004KW1H470M	ELECTRØ 47UF	50WV

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert

1

Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
KA-4060R					
601	1A	*	A01-3124-02	METALLIC CABINET	
604	2A	*	A22-1672-12	SUB PANEL ASSY	
606	2A	*	A60-0561-02	PANEL ASSY	
607	2A	*	A60-0562-02	PANEL	
608	1A	*	A70-0979-05	REMOTE CONTRØLLER ASSY	
609	1A	*	A09-0159-08	BATTERY COVER	
605	2B		B11-0237-14	COLOR FILTER	
615	2A	*	B12-0240-04	INDICATOR	
616	2A		B43-0287-04	KENWOOD BADGE	
-	-		B46-0094-03	WARRANTY CARD	Y
-	-		B46-0095-03	WARRANTY CARD	Y
-	-	*	B46-0096-43	WARRANTY CARD	X
-	-		B46-0310-03	WARRANTY CARD	EGLT
-	-	*	B58-0513-04	CAUTION CARD (PRESET220-240)	Y
-	-	*	B58-0964-03	CAUTION CARD (UL)	Y
-	-	*	B58-0965-03	CAUTION CARD (PTX TYPE PL)	XT
-	-	*	B58-0966-03	CAUTION CARD (ELM TYPE PL)	ELM
-	-	*	B60-1562-00	INSTRUCTION MANUAL (EN)	G
-	-	*	B60-1563-00	INSTRUCTION MANUAL (FR)	ELMYXT
-	-	*	B60-1564-00	INSTRUCTION MANUAL (D/I)	EL
-	-	*	B60-1565-00	INSTRUCTION MANUAL (SP)	EL
-	-	*	B60-1566-00	INSTRUCTION MANUAL (C)	M
-	-	*	B60-1676-00	INSTRUCTION MANUAL (G)	EGL
618	1A		E03-0115-05	AC PLUG ADAPTER	N
620	1C		E30-2592-15	AC POWER CORD	EGLM
620	1C		E30-2717-05	AC POWER CORD	X
620	1C		E30-2721-05	AC POWER CORD	T
620	1C		E30-2739-05	AC POWER CORD	Y
62	2C		E03-0141-05	AC ØUTLET	X
626	1B	*	F20-1322-05	INSULATING BOARD	
-	-		F20-1402-04	INSULATING BOARD	
630	2A		G10-0412-04	NON-HOVEN FABRIC	
631	2C	*	G11-0132-04	SOFT TAPE (15X10X8)	
632	2C	*	G11-2203-04	CUSHION	
-	-	*	G11-2204-04	CUSHION	
-	-	*	H50-1015-04	ITEM CARTON CASE	EGLYMX
-	-	*	H50-1016-04	ITEM CARTON CASE	T
-	-	*	H10-5742-02	POLYSTYRENE FOAMED FIXTURE (L)	
-	-	*	H10-5743-02	POLYSTYRENE FOAMED FIXTURE (R)	
-	-	*	H12-2194-04	PACKING FIXTURE	T
-	-	*	H13-0155-04	CARTON BOARD	X
-	-	*	H25-0225-04	PROTECTION BAG (850X450X0.03)	EGLYMX
-	-	*	H25-0232-04	PROTECTION BAG (235X350X0.03)	EGLYMX
-	-	*	H25-0651-04	PROTECTION BAG (0232 PRINTED)	T
-	-	*	H25-0654-04	PROTECTION BAG (0225 PRINTED)	T
635	1C		J62-0083-05	POWER CORD RUSHING	
-	-		J61-0307-05	WIRE BAND	
640	2A		K29-4215-04	KNØB (INPUT SELECTØR)	

L:Scandinavia K:USA P:Canada R:MEXICO
Y:FX(Far East, Hawaii) T:England E:Europe G:GERMANY
X:Australia M:Other Areas
A indicates safety critical components.

PARTS LIST

4

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Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
J	1C	N35-3006-46	BINDING HD MACHINE SCREW M3X6	
R23 ,24		RN14BK2C9102FTS	91.0K F 1/6W	
R25 ,26		RN14BK2C6801FTS	6.80K F 1/6W	
R99 ,100		RN14BK2C1003FTS	100K F 1/6W	
R125 ,126		RN14AB2E121JTS	FL-PROOF RD 120 J 1/4W	
R127 ,128		RN14AB2E22JTS	FL-PROOF RD 8.2K J 1/4W	
R129-132		RN14AB2E221JTS	FL-PROOF RD 220 J 1/4W	
R130-132		RN14AB2E331JTS	FL-PROOF RD 330 J 1/4W	
R143 ,144		RN14AB2E151JTS	FL-PROOF RD 150 J 1/4W	
R145-148		RN14AB2E47JTS	FL-PROOF RD 4.7 J 1/4W	
R149-152		R92-0205-05	METAL-PLATE 0.1 K 2W	
R153-156		RN14AB2E101JTS	FL-PROOF RD 100 J 1/4W	
R157-164		RN14AB2E102JTS	FL-PROOF RD 1.0K J 1/4W	
R173 ,174		RN14AB2D151JTE	FL-PROOF RS 150 J 2W	
R175 ,176		RS14DB3D100JTE	FL-PROOF RS 10 J 2W	
R195 ,196		RN14BK2E3301FTS	FL-PROOF RS 3.30K F 1/4W	
R201 ,202		RS14DB3D101JTE	FL-PROOF RS 100 J 2W	
R211-214		RN14BK2E1000FTS	RN 100.0 F 1/4W	
R215 ,216		RN14BK2E1001FTS	RN 1.00K F 1/4W	
R219 ,220		RN14AB2E332JTS	FL-PROOF RD 3.3K J 1/4W	
R228		RS14DB3D102JTE	FL-PROOF RS 1.0K J 2W	
R233		RS14DB3A470JTE	FL-PROOF RS 47 J 1W	
R235		RN14BK2E220JTS	RN 220.0 F 1/4W	
R253		RN14AB2E680JTS	FL-PROOF RD 68 J 1/4W	
R281 ,282		RN14BK2E3301FTS	RN 3.30K F 1/4W	
R285		RN14AB2E180JTS	FL-PROOF RD 18 J 1/4W	
R289 ,290		RN14AB2E100JTS	FL-PROOF RD 10 J 1/4W	
R291		RN14BK2E3600FTS	RN 360.0 F 1/4W	
R292		RN14BK2E4700FTS	RN 470.0 F 1/4W	
R295		RN14BK2E2000FTS	RN 20.0 F 1/4W	
VR1		R29-5089-05	POTENTIØ M. 100K X2	
VR3 ,4		R12-1618-05	TRIMMING PØT. (3.3K) IDLE ADJ.	
VR5 ,6		R12-0607-05	TRIMMING PØT. (47Ø) IDLE ADJ.	
K1 -6		S76-0027-05	MAGNETIC RELAY INPUT SELECTØR	
K7		SS1-2092-05	MAGNETIC RELAY	
K8		S76-0015-05	MAGNETIC RELAY	
S1		S68-0033-05	PUSH SWITCH MM/MC	
S2		S42-2139-05	MULTIPLE PUSH SWITCH SPEAKERS	
O1 -16		HSS104A	D1ØDE	
D1 -16		1SS131	D1ØDE	
D21 -22		HZS15S(B)	ZENER D1ØDE	
D21 ,22		RØ15JS(B)	ZENER D1ØDE	
D23 ,24		HZS8.2S(B2)	ZENER D1ØDE	
D23 ,24		RØ8.2JS(B2)	ZENER D1ØDE	
D25 ,28		S5486B	D1ØDE	
D25 -28		1SØ139-100	D1ØDE	
D29 ,30		HSS104A	D1ØDE	
D29 ,30		1SS131	D1ØDE	
D31		DSSBA20FØ3	D1ØDE	
D31		RBV-6Ø2LFA	D1ØDE	
D41 -51		HSS104A	D1ØDE	
D41 -51		1SS131	D1ØDE	
D52		HZS5.1S(B2)	ZENER D1ØDE	

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Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
C131 ,132		CEØ4KW1H10ØM	ELECTRØ	
C133 ,134		CF92EV1H1Ø2J	MF 5ØWV	
C135 ,136		CF92EV1H1Ø4J	MF 1ØØØF J	
C137 ,138		CEØ4KW1C33ØM	ELECTRØ	
C139 ,140		CEØ4KW1V1ØØM	ELECTRØ	
C141		CEØ4KW1A1Ø1M	ELECTRØ	
C142		CEØ4KW1HØ1ØM	ELECTRØ	
C143		CF92EV1H1Ø3J	MF 0.1ØØØF J	
C144		CEØ4KB1H3Ø1K	CERAMIC 3ØØØF K	
C145		CEØ4KW1C1Ø1M	ELECTRØ	
C146		CØ92FM1H222JEL	MYLAR 22ØØØF J	
C147		CK45FB1H1Ø2K	CERAMIC 1ØØØØF K	
C148		CK45EB2H1Ø3P	CERAMIC 0.1ØØØF P	
C150		CPØ4KW1B1ØØM	AP-ELEC 25WV	
C151 ,152		CC45FSL1H221J	CERAMIC 22ØØF J	
C153		CØ92FM1H1Ø4JEL	MYLAR 0.1ØØF J	
C154 ,155		CK45FF1H1Ø3Z	CERAMIC 1ØØØØF Z	
C156		CEØ4KW1B1Ø2M	ELECTRØ 25WV	
C157		CF92EV1H1Ø2J	MF 1ØØØØF J	
C158		CF92EV1H1Ø4J	MF 0.1ØØF J	
C159		CEØ4KW1H2R2M	ELECTRØ 2.2ØF 5ØWV	
C160 ,161		CEØ4KW1HØ1ØM	ELECTRØ 1.ØØF 5ØWV	
C162		CEØ4KW1A1Ø1M	ELECTRØ 1ØØØF 1ØWV	
C163		CØ92FM1H1Ø3JEL	MYLAR 0.1ØØØF J	
C164		CØ9-1828-Ø5	BACKUP 0.Ø47F 5.5WV	
C165		CK45FB1H1Ø2K	CERAMIC 1ØØØØF K	
C166		CEØ4KW1B47ØM	ELECTRØ 47ØF 25WV	
C167		CØ92FM1H683JEL	MYLAR 0.Ø68ØF J	
C168		CK45FF1H473Z	CERAMIC 0.Ø47ØF Z	
C169		CØ92FM1H1Ø3JEL	MYLAR 0.1ØØØF J	
C171		CK45FB1H1Ø2K	CERAMIC 1ØØØØF K	
C172		CEØ4KW1HØ1ØM	ELECTRØ 1.ØØF 5ØWV	
C173 ,174		CØ92FM1H1Ø4JEL	MYLAR 0.1ØØØF J	
C176		CF92EV1H1Ø3J	MF 0.1ØØØF J	
C177		CØ92FM1H1Ø3JEL	MYLAR 0.1ØØØF J	
C178		CK45FB1H1Ø2K	CERAMIC 1ØØØØF K	
C179		CEØ4KW1V1ØØM	ELECTRØ 1ØØØF 35WV	
C180		CØ92FM1H1Ø3JEL	MYLAR 0.1ØØØF J	
C181		CK45FF1H473Z	CERAMIC 0.Ø47ØF Z	
J1		E13-Ø235-Ø5	PHØØ JACK(2P) PHØØ	
J2		E13-Ø82Ø-Ø5	PHØØ JACK(ØP) CD/TUN/AUX/T1 R	
J3		E13-Ø634-Ø5	PHØØ JACK(6P) T1 PLAY/TAPE 2	
J4		E7Ø-ØØ18-Ø5	SCREW TERMINAL BOARD SPEAKERS	BOYMAT
J4		E7Ø-ØØ19-Ø5	SCREW TERMINAL BOARD SPEAKERS	L
J5		E11-Ø2Ø8-Ø5	PHONE JACK PHØNES	
J6		E11-Ø188-Ø5	MINIATURE PHONE JACK(2P) S. CON	
F4		FØ6-1Ø22-Ø5	FUSE (SEMØØ) (25ØV T1AL)	
Ø6 ,7		J11-ØØ98-Ø5	WIRE CLAMPER	
L1 ,2		L4Ø-22Ø1-17	FUSE CLIP	
X1		L78-Ø29Ø-Ø5	SMALL FIXED INDUCTØR(22ØH,K) RESØNATØR (8MHZ)	
F	2B	N89-3ØØ8-45	BINDING HEAD TAPITTE SCREW	

PARTS LIST

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Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕
Q64 -69		DTA143TS	DIGITAL TRANSISTOR	
Q64 -69		UN4116	TRANSISTOR	
Q70		DTA143TS	DIGITAL TRANSISTOR	
Q70		UN4216	TRANSISTOR	
Q71		2SC2458(Y, GR)	TRANSISTOR	
Q71		2SC3311A(Q, R)	TRANSISTOR	
Q101, 102		2SC4137F19(V, W)	TRANSISTOR	
Q103, 104		2SK2013	FET	
Q105, 106		2SK313	FET	
Q107, 108		2SD1717B0*5	TRANSISTOR	
Q109, 110		2SB1162B0*5	TRANSISTOR	
CONTROL UNIT(X11-351X-XX)				
D1		B30-1291-05	LED	
D11 -19		B30-1291-05	STAND BY INPUT SELECTOR	
C1, 2		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C3 -8		CF92FV1H101K	MF 100PF K	
C9 -12		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C13 -16		CE04KW1V100M	ELECTRO 10UF 35WV	
C17 -20		CE04KW1H22JEL	MYLAR 0.022UF J	
C21, 22		CE04KW1H010M	ELECTRO 1.0UF 50WV	
C23, 24		CF92FV1H561J	MF 560PF J	
C31, 32		CE04KW1H104JEL	MYLAR 0.10UF J	
C33 -35		CE04KW1H103JEL	MYLAR 0.010UF J	
C36, 37		CE04KW1H102JEL	MYLAR 1000PF J	
C51, 52		CE04KW1HR33M	ELECTRO 0.33UF 50WV	
C61		CE04KW1A470M	ELECTRO 470UF 10WV	
C61, 62		C91-1488-05	MF 6600PF 250VAC	
J1		E03-0147-05	AC OUTLET	ECLM
J2		E03-0306-05	AC OUTLET	Y
J3, 4		E03-0109-05	AC OUTLET	T
F1		F06-2021-05	FUSE (SEMKO) (250V T2AL)	YM
F2		F06-2021-05	FUSE (SEMKO) (250V T2AL)	ECL
F3		F05-2525-05	FUSE (SEMKO) (250V T2.5AL)	
CN1, 2		J13-0075-05	FUSE CLIP	YM
CN3, 4		J13-0075-05	FUSE CLIP	ECL
CN5, 6		J13-0075-05	FUSE CLIP	
R45, 46		RN14BK2E4700FTS	RN 470.0 F 1/4W	
R81		RD14GB2E820JTS	FL-PROOF RD 82 J 1/4W	
VR1		R06-5191-05	POTENTIOMETER(200KB) BALANCE	
VR2, 3		R06-3061-05	POTENTIOMETER(10KB) BASS/TRBLE	
K1		S76-0009-05	MAGNETIC RELAY	
S1		S40-1064-05	PUSH SWITCH POWER	
S6		S60-0011-05	ROTARY SWITCH REC. OUT	
S7 -9		S40-1064-05	PUSH SWITCH MUTE/LOUD/S.DIR	
S15		S31-2322-05	SLIDE SWITCH AC VOLTAGE SEL	YM
S5		T99-0526-05	ROTARY ENCODER INPUT SELECTOR	
D30		HSS104	DIODE	
D30		1SS132	DIODE	
IC1		NM4565D-D	IC(OP AMP X2)	
Q1		2SA954(L, K)	TRANSISTOR	
Q2		2SC2003(L, K)	TRANSISTOR	
A1		W02-1153-05	ELECTRIC CIRCUIT MODULE	

LS:Scandinavia
Y:PX(Far East, Hawaii)
Y:AFES(Europe)
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T:England
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R:MEXICO
G:GERMANY
I:indicates safety critical components.

5

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Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕
D52		R05-1JS(B2)	ZENER DIODE	
D53 -65		HSS104A	DIODE	
D53 -65		1SS131	DIODE	
D67, 68		HSS104A	DIODE	
D67, 68		1SS131	DIODE	
D69		HZ57-5S(B2)	ZENER DIODE	
D71, 72		RD7-5JS(B2)	ZENER DIODE	
D71, 72		HSS104A	DIODE	
D71, 72		1SS131	DIODE	
D74 -79		HSS104A	DIODE	
D74 -79		1SS131	DIODE	
IC1		NM4565D	IC(OP AMP X2)	
IC2		TAB409S	IC(MOTOR CONTROL)	
IC3		TC9142N	IC(ANALOG SWITCH ARRAY)	
IC4		TC9144N	IC(16CH BILATERAL SELECTOR SW)	
IC5		M37470M4-189SP	MT-COM IC	
IC6		PST529D	IC(SYSTEM RESET)	
Q1 -4		2SK371(BL)	FET	
Q1 -4		2SK371(V)	FET	
Q5, 6		2SD1502(S, T)	TRANSISTOR	
Q9		DTA143TS	DIGITAL TRANSISTOR	
Q9		UN4216	TRANSISTOR	
Q10		DTA143TS	DIGITAL TRANSISTOR	
Q11		UN4116	TRANSISTOR	
Q11 -18		2SC1845(F, E)	TRANSISTOR	
Q19 -22		2SA1124(R, S)	TRANSISTOR	
Q23, 24		2SC2632(R, S)	TRANSISTOR	
Q25, 26		2SA992(F, E)	TRANSISTOR	
Q27, 28		2SC1845(F, E)	TRANSISTOR	
Q31, 32		DTA143TS	DIGITAL TRANSISTOR	
Q31, 32		UN4216	TRANSISTOR	
Q33, 34		DTA143TS	DIGITAL TRANSISTOR	
Q33, 34		UN4116	TRANSISTOR	
Q35, 36		2SC2458(Y, GR)	TRANSISTOR	
Q35, 36		2SC3311A(Q, R)	TRANSISTOR	
Q37 -39		2SA1048(Y, GR)	TRANSISTOR	
Q37 -39		2SA1309A(Q, R)	TRANSISTOR	
Q40		2SC3940A(R, S)	TRANSISTOR	
Q40		2SD843(E, F)	TRANSISTOR	
Q41		2SD2012	TRANSISTOR	
Q41		2SD2061(E, F)	TRANSISTOR	
Q42		2SB1370(E, F)	TRANSISTOR	
Q42		2SB1375	TRANSISTOR	
Q43		2SC2003(L, K)	TRANSISTOR	
Q44		2SA954(L, K)	TRANSISTOR	
Q45		2SA1534A(R, S)	TRANSISTOR	
Q45		2SB764(E, F)	TRANSISTOR	
Q46		2SC3940A(R, S)	TRANSISTOR	
Q46		2SD863(E, F)	TRANSISTOR	
Q47 -50		2SC2878(B)	TRANSISTOR	
Q51, 52		2SC1845(F, E)	TRANSISTOR	
Q53		2SC2003(L, K)	TRANSISTOR	
Q58 -63		DTA143TS	DIGITAL TRANSISTOR	
Q58 -63		UN4216	TRANSISTOR	

LS:Scandinavia
Y:PX(Far East, Hawaii)
Y:AFES(Europe)
K:USA
T:England
X:Australia
P:Canada
E:Europe
M:Other Areas
R:MEXICO
G:GERMANY
I:indicates safety critical components.

SPECIFICATIONS

FOR U. K. and Europe

Continuous rated power output

(DIN) 1kHz, at 8 Ω 70W+70W
 at 4 Ω 90W+90W

(IEC/NF) From 63Hz to 12,500Hz, 0.7% T.H.D.

at 8 Ω 70W+70W
 at 4 Ω 90W+90W

Dynamic power 85W(8 Ω)
 100W(6 Ω)
 120W(4 Ω)

Damping factor 40(50Hz)

Total harmonic distortion

..... 0.06%(20Hz~20,000Hz, 60W, 8 Ω)

0.03%(1kHz, 60W, 8 Ω)

Intermodulation distortion 0.03%(60W, 8 Ω)
 (70Hz : 7kHz = 4:1)

Frequency response(IHF '78)

CD/TUNER/AUX/TAPE 1, 2

..... 5Hz~90kHz, +0dB, -3dB

PHONO 'RIAA' response 20Hz~20kHz,
 +0.3dB, -0.3dB

Maximum input level

PHONO(MM) 120mV, 0.3% T.H.D. at 1kHz

PHONO(MC) 10mV, 0.3% T.H.D. at 1kHz

Signal to noise ratio

PHONO(MM) 88dB(IHF '66)

79dB(IHF '78)

PHONO(MC) 68dB(IHF '66)

75dB(IHF '78)

CD/TUNER/AUX/TAPE1, 2 105dB(IHF '66)

81dB(IHF '78)

PHONO(MM) 63dB(DIN, 50mW output)

CD/TUNER/AUX/TAPE1,2

..... 63dB(DIN, 50mW output)

Input sensitivity/impedance

PHONO(MM) 2.5mV/47k Ω

PHONO(MC) 0.2mV/100 Ω

CD/TUNER/AUX/TAPE1,2 200mV/47k Ω

Tone control

BASS ± 10 dB(at 100Hz)

TREBLE ± 10 dB(at 10kHz)

Loudness control

(VOLUME at -30 dB level) +6dB(100Hz)

+3dB(10kHz)

Output level/impedance

TAPE REC 200mV/1.5k Ω

General

Power consumption 200W(IEC)

AC outlets

For U. K.

SWITCHED 2;(Total 200W max.)

For Europe

SWITCHED 3;(Total 200W max.)

Dimensions W : 440mm (17-5/16")

H : 137mm (5-3/8")

D : 351mm(13-13/16")

Weight(net) 7.9kg(17.4lb)

KA-4060R

SPECIFICATIONS

FOR OTHER COUNTRIES

Continuous rated power output

(IHF '66) From 20Hz to 20,000Hz 0.06% T.H.D.

at 8Ω 60W+60W

(IEC/NF) From 63Hz to 12,500Hz, 0.7% T.H.D.

at 8Ω 70W+70W

at 4Ω 90W+90W

Dynamic power 85W(8Ω)

100W(6Ω)

120W(4Ω)

Damping factor 40(50Hz)

Total harmonic distortion

..... 0.06%(20Hz~20,000Hz, 60W, 8Ω)

0.03%(1kHz, 60W, 8Ω)

Intermodulation distortion 0.03%(60W, 8Ω)

(70Hz : 7kHz = 4:1)

Frequency response(IHF '78)

CD/TUNER/AUX/TAPE1,2

..... 5Hz~90kHz, +0dB, -3dB

PHONO 'RIAA' response 20Hz~20kHz,

+0.3dB, -0.3dB

Maximum input level

PHONO(MM) 120mV, 0.3% T.H.D. at 1kHz

PHONO(MC) 10mV, 0.3% T.H.D. at 1kHz

Signal to noise ratio

PHONO(MM) 88dB(IHF '66)

79dB(IHF '78)

PHONO(MC) 68dB(IHF '66)

75dB(IHF '78)

CD/TUNER/AUX/TAPE1,2 105dB(IHF '66)

81dB(IHF '78)

Input sensitivity/impedance

PHONO(MM) 2.5mV/47kΩ

PHONO(MC) 0.2mV/100Ω

CD/TUNER/AUX/TAPE1,2 200mV/47kΩ

Tone control

BASS ±10dB(at 100Hz)

TREBLE ±10dB(at 10kHz)

Loudness control

(VOLUME at -30dB level) +6dB(100Hz)

+3dB(10kHz)

Output level/impedance

TAPE REC 200mV/1.5kΩ

General

Power consumption 200W

AC outlet

For Australia

SWITCHED 1;(200W max.)

For other countries

SWITCHED 3;(Total 200W max.)

Dimensions W : 440mm (17-5/16")

H : 137mm (5-3/8")

D : 351mm(13-13/16")

Weight(net) 7.9kg(17.4lb)

Note : KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be change without notice.

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Unit 3712-3724, Level 37, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong, N.T., Hong Kong

KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane # 07-00, KENWOOD Building, Singapore, 1334

Note :

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the Europe(E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.